5

10

What is claimed is:

- 1. A fluidized bed reactor for the ammoxidation of hydrocarbons, which is characterized by installing a set of internals in proximity to upper region of the catalyst bed, capable of enhancing the contact efficiency between gas and solid phases.
- 2. The fluidized bed reactor for the ammoxidation of hydrocarbons according to claim 1 wherein said internals comprise packings, baffles, screens, and the like.
- 3. The fluidized bed reactor for the ammoxidation of hydrocarbons according to claim 1 wherein said internals are positioned with their bottom side beneath the surface of the catalyst bed to keep its depth not larger than 20% of the height of said fluidized bed, while with their top side not beyond the inlet of the first-stage cyclone separator.
- 4. The fluidized bed reactor for the ammoxidation of hydrocarbons according to claim 1 wherein said hydrocarbons are propane, propylene, isobutene or xylene.